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ABSTRACT

Developed as part of a project aimed at providing information about adult learners to vocational faculty and administrators to help them develop teaching methods, curricula, and programs for adults in California's community colleges, this report focuses on issues and practices related to workforce development, adult vocational students, effective teaching for adults, and model vocational programs for adults. Following a brief introduction, the first section of the report examines the role of community college vocational programs in workforce development, focusing on the "Skills Gap," or the skills needed by today's workforce that many workers currently lack. The second section describes the characteristics and needs of adult learners in the community college, taking note of the need for ethnic and cultural diversity in adult programs. Issues related to effective teaching methods for adults are examined in the third section, including a discussion of andragogy, teaching strategies, student involvement, different learning styles, and lessons from corporate training The fourth section examines characteristics of "model" vocational programs for adult learners, highlighting ways of attracting adults to the program, retaining adults, and helping them to achieve career goals. Finally, a brief summary explains ways to incorporate these practices into adult vocational programs. A 51-item bibliography and a list of contact people for model programs are included. (MAB)

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# Report on Successful Practices:

# Adult Learners in Vocational Programs

A project aimed at better serving the career needs of adults and the workforce needs of business and industry by increasing the effectiveness of vocational education for adult returning students in the California Community Colleges.

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# Introduction

This report is part of a California statewide VATEA grant project funded through Carl D. Perkins vocational funds. The report is organized into five major sections. The first section examines the role of community college vocational programs in workforce development. The second section describes the characteristics and needs of adults learners in the community college. Effective teaching methods for adults are reviewed in the third section. The fourth section examines the characteristics of "model" vocational programs for adult learners. Finally, the fifth section addresses ways to incorporate effective practices for adult learners into vocational programs.

## Recognizing the Need

Changing demographics of the student population.

The population of adults attending community colleges has reached significant proportions. Currently about half of the students enrolled in the nation's community colleges are age 25 and older, and the mean age is 29. Nationally, 67 percent of all community college students attend part-time, 80 percent work while attending college and, of these, half work full time.

Career preparation.

Most adults return to college for work-related reasons. Some take classes to update their skills, others need certification for advancement, and many want new skills to change careers. Recent reports from business and industry indicate a shortage of workers with adequate skills for today's workplace. Displaced workers and those who want to advance in a career must be prepared to meet these new workplace demands.

Needs of adults.

Why is it important to tailor vocational programs to meet the needs of adults? Despite high initial motivation, adults often drop out of classes due to multiple outside commitments and many time pressures. However, by structuring programs for the busy schedules of adults, and by using teaching methods which actively engage adults in their learning, they are likely to complete classes and achieve career goals.

Faculty development needs.

Although the adult student population continues to grow, many faculty members may not be familiar with teaching methods which are particularly effective for adult learners. If community colleges are to serve the needs of adults and workforce development needs, vocational faculty must become aware of the teaching methods and program structures which are particularly effective with adult learners, and then begin to incorporate these ideas into their classes and programs.

## Purpose of this Project

The purpose of this VATEA project is to better serve the career needs of adults and the workforce needs of business and industry by increasing the effectiveness of vocational education for adult learners in the California community colleges. This project is designed to provide valuable information about adult learners to vocational faculty and administrators so that they might develop teaching methods, curriculum, and program structures for adults. It is hoped that this statewide project will be a catalyst for the initiation of local campus activities, such as curriculum development and faculty development, which will ultimately increase the effectiveness of vocational programs for adult learners in the California community colleges.

# Workforce Development

## The "Skills Gap"

Displaced Workers.

Since 1990, California has lost a total of 541,500 jobs as a result of the national recession, defense cuts, and a decline in construction. According to the Employment Development Department, the greatest losses are in aerospace, high-tech, heavy manufacturing, and construction. Because many of these jobs will probably never be replaced, displaced workers must be retrained to gain new skills for different types of jobs, or face the prospect of low-paying, low-skilled jobs.

High skills or low wages.

The Commission on the Skills of the American Workforce report, America's Choice: High Skills or Low Wages, indicates that American businesses must make a choice: either we compete with foreign nations on their terms, with lower wages, increased hours and demoralized workers, or we restructure the work organization and upgrade workers' skills for a high-skill, high-performance organization. However, the shortage of high-skill workers has forced some companies to "de-skill" jobs to ensure product consistency and continued productivity. This trend is viewed by many as an unpalatable, short-term solution that will ultimately result in an increasingly greater wage and skill gap.

Does a "skills gap" exist?

The American Society for Training and Development (ASTD) reports that two-thirds of those who will be working in 2000 are already in the workforce, and 75 percent of the current workforce will need significant retraining over the next decade. According to the Hudson Institute's landmark study, Workforce 2000, the number of low-skilled jobs are declining, and the number of jobs requiring higher math, language and reasoning skills is increasing. Projections indicate that by 2000, the fastest growing jobs will be in professional, technical, and sales fields, for a total of eight million new jobs. These projections are based on Bureau of Labor Statistics figures which have consistently underestimated the growth of skilled occupations.

In a recent California Business Roundtable Survey, 63 percent of the state's largest firms reported that applicants for entry level positions lacked sufficient educational background. By the year 2000, 50 percent of all jobs, and 65 percent of new jobs in California will require some college education. Currently in California over 23 percent of residents age 25 and older have a college degree, and 30 percent have some college education. But what about "the forgotten half:" the 22 percent who finished high school but did not go on to college, and the 24 percent who do not have a high school diploma? Worse yet, at least 20 percent of the current American workforce is functionally illiterate: unable to read and comprehend well enough for everyday situations. The Hudson Institute reports that the main reason companies don't hire job candidates is inadequate writing or verbal skills. And many employers report a lack of employees with good work attitudes.

## Skills Needed by Today's Workforce

Today many fields require greater credentials than they did in the past: more education and more licensing. More education is required because of safety issues, regulations, and increasingly complex technical skills used in many fields. This is one of the reasons adults are coming back for more education: to simply keep up with the requirements of their current jobs.

The concern about the skills gap has prompted several studies to determine the skills needed by today's workforce. The skills outlined in these reports are generic skills that apply to many different job settings and careers. The American Society for Training and Development's 1991 study, Workplace Basics: The Essential Skills Employers Want, outlines seven competencies needed by today's workforce:

1. The Foundation Skill: learning to learn.
2. Basic Competency Skills in reading, writing, and computation.
3. Communication Skills: oral communication and listening.
4. Adaptability Skills for creative thinking and problem solving.
5. Personal Management Skills: self-esteem, motivation and goal setting, and employability and career development skills.
6. Group Effectiveness Skills: interpersonal skills, negotiation, and teamwork.
7. Influencing Skills: understanding the organizational culture, and leadership.

Employers are not only concerned about the lack of basic skills in the workforce, but also the seeming lack of work ethic. The advisory committee for this project outlined several attributes of employees which are important to businesses:

1. The importance of commitment to a job: coming to work every day, and on time.
2. Life skills to develop contingency plans so personal circumstances do not interfere with work commitment.
3. Time management skills to successfully balance many responsibilities.
4. A sense of responsibility for doing a good job, and a sense of accountability.

## The Role of Community College Vocational Programs in Workforce Development

Business people sometimes ask, "Is the community college the best educational vehicle to teach or retrain adults?" In the past, community colleges have been perceived by business as being slow to respond to change and to the immediate needs of the workplace. Community colleges are perceived by business as using outmoded teaching methods ("chalk talk"), outmoded equipment, and outmoded scheduling patterns and administrative procedures for enrollment and curriculum development.

These perceptions are starting to change as community colleges become more involved in innovative Contract Education programs which respond directly to the academic and vocational needs of business and industry. The California Community Colleges Economic Development Network, ED>Net, has been very effective in linking business needs with college resources. But colleges may need to reassess how they provide educational services to returning adults in the regular college program if they are to effectively serve workforce development needs.

Although the California Master Plan states that the dual mission of the community colleges is to provide transfer and vocational education, many colleges have instead concentrated their efforts on "traditional" students who plan to transfer, rather than on adults and others who are interested in gaining specific job skills. In his 1989 speech to the California Association of Community Colleges (now the Community College League of California), Chancellor David Mertes said, "To meet the economic and technological challenges that face California, we need a society of educated people." He continued, "I tend to view our mission from the viewpoint that every one of our students is coming to us to prepare to enter the workforce, or to become better prepared in the workforce if they are already there." Community colleges play a crucial role in the workforce development and economic development of California.



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# Adults in Vocational Programs

## Characteristics of Adult Learners

Adult Learners Defined.

"Adult learners" are loosely defined as those over age 25 who have returned to college after not having been in school for some years. They usually work full-time, have family responsibilities, and attend college part-time. Women have constituted the fastest growing segment of adult students. However, it is not safe to assume anything about adult learners. Adults are a very heterogeneous population with different educational backgrounds, different socioeconomic backgrounds, different reasons for returning to college, different educational and career goals, and many different life experiences. Many adult learners are from a working class background and are often first generation college students. However, a majority of adults are likely to have attended some college classes in the past.

Adults in Community College Vocational Programs

Students in vocational programs tend to be older than those in transfer programs and tend to come from lower socioeconomic backgrounds. They also have very diverse educational backgrounds. A study of community college vocational students in North Carolina indicated that 5 percent had earned a bachelor's degree or higher and 46 percent had had some previous college classes. Their educational aspirations are also not easily defined. Although students in vocational programs generally have lower aspirations for educational attainment than those in transfer programs, in California a significant percentage of students in vocational programs for which bachelor's degree programs exist (such as accounting, business, computer science, engineering, or architecture) intended to complete a bachelor's degree.

A study of California vocational students, described by Jim Palmer, classified students into four distinct groups based on their educational objectives:

Program Completers (16%): plan to complete an A.A. degree or a certificate program.
Job Seekers (38%): attend long enough to gain skills necessary to obtain a new job.
Job Up-Graders (37%): already work in the field in which they are taking courses and attend college to upgrade their skills or to maintain a professional license.
Career Changers (9%): are employed, but want to learn new skills to change careers.

Adults in vocational programs tended to be "Job Upgraders" or "Career Changers." They had higher levels of educational attainment and more employment experience than the younger students, who tend to be "Program Completers" and "Job Seekers." Adults tend to enroll in vocational classes on an "ad hoc" part-time basis to update job skills in present occupations or to make mid-life career changes.

Barriers for Adult Learners.

Adults often encounter the following barriers to participation in college classes:

- situational barriers: the costs of attending classes (fees, books, materials, babysitting, transportation), and insufficient time to attend classes.
- institutional barriers: lengthy and complex registration procedures, academic skills assessment requirements, course offerings, times and locations of courses, and the length of the semester.
- dispositional barriers imposed by the adult on him/herself: fear of going to college, low self esteem, lack of desire to learn, lack of energy, and poor time management skills.

## Special Needs of Adult Learners

The 1990 Carl D. Perkins Vocational and Applied Technology Act (VATEA) requires vocational programs to serve those who had been previously underserved by education. These special populations include those who are disabled, those who are educationally or economically disadvantaged, those with limited English proficiency, and individuals who participate in programs to eliminate sex bias.

### Disabled Students

The Americans with Disabilities Act of 1990 requires employers to hire qualified applicants with physical, medical, or mental impairments who can perform the essential functions of a job as long as a "reasonable accommodation" will not cause an undue burden to the employer. To serve the needs of both employers and disabled students, it is important for faculty in vocational programs to understand the characteristics and needs of adult learners with disabilities. Students who are blind, deaf, or physically disabled are more likely to gain the attention of an instructor than those with learning disabilities. Learning disability is a general term for a variety of specific disabilities including minimal brain dysfunction and dyslexia, but not mental retardation. In some cases, students may not be aware of their own learning disability, or may not be aware that assistance is available. Through individualized communication, the instructor and student may begin to work together toward teaching and learning solutions. Although instructors may need to slightly modify assignments to accommodate the needs of a disabled student, high standards of work should be expected to ensure later success in the workplace.

### Educationally Disadvantaged

Underprepared students may be characterized as those who lack college level skills in reading, writing, and math. Many also have poor study skills, including note-taking skills, test-taking skills, and critical thinking skills. Although Basic Skills classes are available for students who need them, and support services for Matriculation provide additional assistance, the problems of the educationally disadvantaged may go deeper than simply developing basic skills.

It is likely that they have had previous negative learning experiences in high school or earlier. As a result, they are likely to have a poor academic self-concept. Because school has been difficult for them, they usually do not find learning intrinsically rewarding. Many have inaccurate expectations of the rigors of college-level work, including the amount of time they should plan to spend studying or working on projects outside of class. If students do poorly in a class, they are less likely to come to class because they are reminded of their deficiencies. As a result, they may decide to drop out of the class. However, a supportive environment and opportunities for teamwork and mastery learning can provide positive external influences which may motivate underprepared students to do well.

### Economically Disadvantaged

Economically disadvantaged students include displaced workers, displaced homemakers, single parents, and others who do not have the financial means for attending college. Some may have recently had traumatic life experiences, such as divorce or loss of a job, and may be feeling lost and confused about the future. In some cases, the need for "retraining" may be unwanted if they were comfortable with their old lives. Major life changes often trigger the need for more education, but some adults may need guidance to find a direction. In addition, they may be unaware of the services that are available, including financial aid and child care.

Limited English Proficiency

Between 1981 and 1989 the number of Limited English Proficient (LEP) students in California doubled. The needs and characteristics of LEP students are very diverse: some are fluent in several languages other than English and may have college degrees; others are not literate in their native language. English as a Second Language (ESL) classes and Vocational English as a Second Language (VESL) classes are designed to assist LEP students. The PAVE (Promoting Access to Vocational Education for LEP Students) Consortium Project, based at El Camino College, is designed to find ways to make vocational classes more suitable for LEP students by making coursework more accessible. This project provides faculty development training to encourage vocational faculty to use a variety of teaching strategies to get ideas across to those with limited English skills. For instance, LEP students often rely heavily on printed materials as a reinforcement of what they think they might have heard. Visual aids, such as pictures, charts, diagrams, slides, videotapes, or demonstrations, also enhance learning for those with limited English skills. Because of their limited language skills, LEP students are often reluctant to participate in the classroom. But with encouragement over time, instructors may slowly bring students with limited English skills into classroom discussions.

Programs to Eliminate Sex Bias

As a part of efforts to eliminate occupational sex bias, California is making efforts to increase enrollment in vocational programs leading to nontraditional career paths for both genders. In addition, programs are being developed to provide single parents, displaced homemakers, and single pregnant women with marketable job skills. These populations often have low self-esteem and face many life challenges in addition to learning new occupational skills. An ERIC review of nontraditional occupations points out that women and men who enroll in nontraditional programs face numerous challenges, including sex bias and stereotyping, harassment, lack of support by family and peers, and lack of role models. Vocational programs should consider ways to enhance the learning environment for adults in programs which are nontraditional for their gender, such as providing faculty and guest speakers as role models, and including nontraditional advisory committee members.

## Ethnic and Cultural Diversity

There has been a general concern in this country about the underrepresentation of ethnic minorities in higher education. In response to a 1986 Statewide Symposium, Equity and Excellence: A Promise to the New Majority, the Board of Governors of the California Community Colleges issued a policy statement on the enrollment, retention, and transfer of minority students, including the following excerpt:

> Given the State's demographic and economic trends, the Board recognizes that unless action to achieve comprehensive educational equity is taken now and is sustained in the years ahead, Californians can expect to face deepening crises of a social, economic, personal or political nature that could undermine the health and welfare of everyone.

Vocational programs must consider ways to serve the needs of an increasingly diverse student population. Minority students may be recruited to vocational programs, but a supportive learning environment is needed to ensure student success in the program. Faculty who appreciate the strengths of an ethnically diverse workforce are likely provide a positive learning environment for minorities who are underrepresented in the program, and in the workforce of that occupation.

# Effective Teaching for Adults

## Theory of Adult Learning: Andragogy

"Andragogy" is a term for the theory of adult learning. The term "pedagogy" is more commonly used to describe teaching and learning theory. The word "Pedagogy" stems from the Greek word "paid," which means "child." "Pedagogy" means "teaching children." The word "andragogy" stems from the Greek word "aner," which means "man" (or adult). The word "andragogy" means "teaching adults."

Malcolm Knowles has described several important differences in the assumptions of andragogy and pedagogy. Pedagogy assumes that the learner is dependent on the "expert" teacher for information, and andragogy assumes that learners will become increasingly self-directed in their learning. Andragogy recognizes that adults have had important life experiences which may be used as a rich resource in the learning process, whereas pedagogy assumes that learners must build on their limited life experiences. In andragogy it is assumed that readiness to learn develops from life tasks and problems, but pedagogy assumes that learners are uniformly ready to learn by age-level or curriculum. Pedagogy often encourages the mastery of a body of knowledge, whereas andragogy encourages the application of knowledge through tasks and problem-solving activities. Finally, pedagogy assumes that learners are motivated through external rewards and punishments (grades), and andragogy assumes that learners are motivated by their own internal incentives and curiosity.

Classes taught using the theory of andragogy may be characterized as learner-centered, collaborative, active, problem-centered classes in which the teacher is a facilitator of learning who recognizes that students are learning to meet their life needs, and that the life experiences of the learners make a valuable contribution to the class. In contrast, pedagogical classes are teacher-centered classes in which the teacher is the authority and learners are passive and dependent on the teacher.

In reality, many teachers combine elements of andragogy and pedagogy in their teaching. Malcolm Knowles and other adult learning experts have long asserted that the theory of "andragogy" may be used effectively with children as well as adults. The major difference is that adults have had more life experiences than children. It is also important to recognize that many adults prefer passive "pedagogical" teaching methods in which the teacher is the authority who takes responsibility for passing on knowledge to the students. When adults are learning something new, this mode of learning is often appropriate. However, teachers should gradually encourage adults to take more responsibility for their learning so they will become lifelong learners.

## Teaching Strategies for Adult Learners

### Adults as Learners

Adults bring to classes a wealth of life experiences which provides a foundation for gaining additional knowledge. However, adults often doubt their own ability to learn new things, and many are apprehensive about returning to college. Some may have had previous negative learning experiences, and many do not have the support of their families or friends. Adults are time-conscious learners. Due to their multiple responsibilities, adults have only a limited amount of time to devote to education. They will become very frustrated if they believe time is being wasted in the classroom on material or activities they feel are irrelevant. Adults often have a very specific learning goal, and are interested in learning what <u>they</u> consider to be important. They will work very hard toward that goal, but they want to meet their educational goals as directly, quickly, and efficiently as possible.

## Motivations of Adult Learners

Adult life cycles and developmental stages influence how individuals approach learning as well as what they want or need to learn. Adults are more likely to seek out learning opportunities as they encounter life-changing events, such as divorce or loss of a spouse, entry into employment or loss of employment. Critical life periods are a time of reassessment and readjustment during which an adult might choose to attend college in order to start a new direction in life. Adults are usually motivated to learn because of the need to acquire a new skill or make a decision. Three-quarters of adults take classes for job-related reasons.

## Adult Learning Preferences.

The Learning Environment. Adults prefer a learning environment which is supportive, with an informal and relaxed atmosphere. A non-threatening classroom is particularly important. Many adults who are taking a class after a long absence from school have unfounded fears that they are not capable of college level work. Instructors of adults must recognize that it took an act of considerable faith for the adult learner to even enter the classroom and risk exposing deficiencies.

The Instructor. Adults prefer instructors who have the following ten qualities:

1. They are content experts who have first-hand experience in the subject.
2. They provide relevance by showing adults how they can use this information in their personal or professional lives tomorrow!
3. They are well-organized with a well-planned course, a week-by-week schedule of class activities, and well-planned class meetings with a clear agenda.
4. They don't waste time. Because adults are very busy, they appreciate instructors who start and end on time, and keep things moving productively during the class.
5. They state clear learning goals for the course, and for each class meeting. Adults want to know the purpose of the class activities, and how they relate to the learning goals for the course. Instructors can indicate this by providing a clear agenda for each class meeting which includes specific behavioral objectives: "By the end of today's class meeting you will be able to . . ."
6. They are willing to modify the learning goals based on the needs and interests of the learners. Instructors should recognize that each person has individual reasons for taking the class, and individual learning goals for the class. Adults appreciate opportunities (such as outside assignments or team projects) to explore their individual areas of interest which are within the scope of the class.
7. They individualize instruction by taking students where they are, and helping them along the way, as needed. Through regular student feedback, such as "Classroom Research," instructors can address areas of particular difficulty.
8. They use active learning and problem-solving by asking students to think about how they will apply what they are learning in class. Role-playing activities, simulations, discussions, and problem-solving activities in class give students an opportunity to actively use what they have learned.
9. They encourage self-directed learning, while recognizing individual learning development. It is important to recognize that learning is a developmental process, and that learning occurs at different rates. Those who know more about a subject in the beginning may be ready for self-directed learning sooner.
10. They are supportive and non-threatening. Adults appreciate instructors who make it clear that learning is a collaborative process in which teachers and learners work together and learn from one another.

Teaching Underprepared Adult Learners

Many underprepared learners have an "external locus of control" in learning situations: they tend to rely on external forces and external encouragement rather than intrinsic motivation to learn. For this reason, underprepared learners may be motivated through a positive learning environment which includes strong encouragement and high expectations from the teacher, extra attention to passive students, other highly motivated students, and learning clusters which provide opportunities for teamwork within the class.

Because underprepared learners have often had prior negative learning experiences, competitive learning situation tend to discourage them. However, "Mastery Learning," developed by Benjamin Bloom, is particularly effective for underprepared learners. Bloom believes that about 95 percent of all students can learn if provided with appropriate prior and current learning conditions. Mastery Learning includes frequent feedback, corrective resources, and individualized help. Mastery learning also recognizes that students learn at different rates, and provides mechanisms for allowing extra practice time to master necessary skills.

Teaching Ethnically & Culturally Diverse Adult Learners

Research studies clearly show that some cultural factors lend themselves to the use of particular teaching strategies which can greatly enhance the learning process. In addition, some cognitive learning patterns are culturally influenced. These are important in the learners' processing of concepts and synthesizing of content. For instance, the concept of teamwork is very important in Asian and Hispanic cultures, whereas individual achievement is valued by other cultures.

In some cultures, a lively classroom exchange with the instructor is perceived as disrespectful. Often when instructors ask students with limited English skills, "Do you understand?" they will automatically respond, "Yes," to show politeness and respect, whether or not they actually understood. Generally it is better to find out if students understand the material by posing situations, problems, or other content-specific questions so that students may attempt to explain, apply or integrate new concepts and information.

## Promoting Involvement in Learning

A 1984 landmark report on higher education, titled Involvement in Learning, points out that the most important condition for maximizing student learning is student involvement. Involvement is defined as, ". . . how much time, energy, and effort students devote to the learning process." The report recommends several actions to increase involvement in learning: using active modes of teaching, requiring students to take greater responsibility for their learning, using learning technologies which increase the amount of contact between students and faculty, and creating learning communities.

Adults become more involved in their learning by participating in activities which provide them with experiences and opportunities to apply what they have learned. Active learning, particularly in "hands-on" vocational classes, promotes learning by doing: solving problems, practicing new skills, participating in simulations and role playing activities, and experiencing the workplace environment through field trips and internships. A topic becomes far more relevant for learners when they are provided with opportunities for active learning experiences, rather than just reading about it or discussing it in class. Discussions following the learning activity gives adult learners an opportunity to review the outcome of the activity, or a chance to compare the outcome with others in the class.

## Classroom Assessment Techniques

Classroom Assessment Techniques, developed by K. Patricia Cross of U.C. Berkeley and Thomas A. Angelo of Boston College, allow instructors to use simple research techniques to find out what students have been learning. These techniques are described in detail in their 1988 book, Classroom Assessment Techniques: A Handbook for Faculty, published by the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL) at the University of Michigan.

Benefits of using Classroom Assessment Techniques. Both instructors and adult learners benefit from the use of Classroom Assessment Techniques. Classroom Assessments cause instructors to focus on student learning rather than on their own teaching. By finding out what students have learned and what is unclear, instructors can focus the class more effectively to meet the learning needs of the students. This may entail reviewing some topics, or moving more quickly through other areas. Unlike student evaluation surveys given at the end of the course, Classroom Assessments provide faculty with on-going evaluations. At the end of the semester it's too late to make changes. But through on-going formative evaluations at the end of each class meeting, the instructor can find out what can be done immediately to improve student learning. In addition, Classroom Assessment Techniques provide an opportunity for teachers to ask students to reflect on their learning. This provides teachers with insight into student learning that would otherwise not be apparent.

For students, Classroom Assessments provide a non-threatening, non-evaluative method of finding out what has been learned. Students are often hesitant to ask questions during class because they don't want to interrupt a lecture, or they may feel that they are the only one who didn't "get it." Classroom Assessments provide an opportunity for all students to ask questions anonymously. Students are likely to discover that others in the class also had similar questions, or that others in the class learned some interesting things that they had not picked up from the class session. This may stimulate some students to become more involved in class meetings, and to use critical thinking skills during class. Finally, students are likely to become more involved in their own learning because Classroom Assessments require them to think about what they've learned so far by summarizing major points of a particular class meeting. Through greater involvement, students are likely to become more self-directed learners, and may be less likely to drop out of the class.

Using Classroom Assessments. Classroom Assessment Techniques may be used in any type of class: traditional academic classes such as English, History, and Math; vocational "hands-on" classes such as Child Care, Broadcasting, and Technical Education; and activity classes such as Music, Art, and Physical Education. The book mentioned above contains detailed explanations of 30 different Classroom Research Techniques. Different techniques may be more effective for different types of classes. Some techniques are for individuals, others are for use in small groups. Here is one example of a simple technique which may be used at the end of a class:

Step 1: About five minutes before the end of class, hand out index cards.

Step 2: Ask students to answer on one side, "What was the most important thing you learned today?" Or a specific content-centered question may be used.

Step 3: On the other side, ask them to write any new questions they have as a result of the class meeting, or areas they didn't fully understand.

Step 4: Collect the cards (they should be anonymous).

Step 5: Tally the answers and analyze. The cards may be arranged into categories.

Step 6: This is the most important step! Spend five minutes at the beginning of the next class meeting briefly summarizing the results of the classroom assessments, and address the areas which were not fully understood.

## Cooperative Learning

The ability to work cooperatively in teams is highly valued in the workplace. Because in their daily lives adults work cooperatively with others at home and in the workplace, they can relate to cooperative learning. Cooperative learning activities in which learners work together in teams to complete a task or solve a problem allow students to learn by doing and give them an opportunity to learn from each other.

Some adult learners may be initially resistant to small group activities because they may perceive them as a "waste of time." It is possible that they have experienced small group activities that *were* a waste of time, simply because they were not well-designed. A common misconception about cooperative learning is that the instructor's only responsibility is to ask students to form small groups, then the students are on their own. In reality, the instructor must carefully structure and design cooperative learning activities in order to produce the desired learning outcomes. The instructor should also carefully monitor the progress of the small groups, and should be available throughout the process as a resource person.

In designing a cooperative learning activity, the instructor should start by thinking about the learning outcomes that should be achieved by the activity. Before starting the activity, the instructor must explain the purpose of the activity, and what the learners can expect to learn as a result of the activity. The task or problem should be clearly outlined, either in a handout or on an overhead that may be seen easily. Ideally, small groups should have about four members to maximize participation. Each person in the group may be assigned a specific task, or one person may be assigned as the person who will later report back to the class. A relatively short amount of time (10-15 minutes) should be allowed for small group activities to encourage the groups start working quickly. Finally, a very brief amount of time (2-3 minutes per group) should be allowed at the end to share results.

Some faculty are resistant to cooperative learning activities because they believe that these activities take "too long." But these activities can take as much or as little time as desired, depending on the complexity of the task. A simple cooperative learning activity that can take as little as five minutes is called "Think-Pair-Share." First, learners are asked to spend one minute to "think" about a specific topic or problem, and to write down their ideas. Next, they "pair" up, and each person takes one minute to share their own ideas. Finally, the instructor takes just a couple more minutes the class to "share" some of the ideas, making a list of the ideas on an overhead or flipchart as students contribute them. This brief cooperative activity is time well invested, because it provides active involvement in learning for everyone, which enhances learning far more than passively listening to the instructor.

## Experiential Learning

Most vocational programs lend themselves naturally to experiential learning: learning through experiences. Experiential learning gives students an opportunity to put their skills to the test in the real world. Internships, volunteer work, part-time entry-level jobs, or independent field research are examples of experiential learning opportunities. Adults who have had years of experience in business are less likely to take advantage of experiential learning opportunities. However returning women who have been away from work and those with little working experience are usually eager to obtain experiences in their chosen field. Vocational programs often encourage students of all ages to participate in internships or any related on-the-job experiences. Pursuing the internship is a self-directed experience in itself. Once on the job, students must rely on their skills and problem-solving ability. The more self-directed the learning experiences are in college, the easier it is for students to make the transition from the college setting to the work setting.

## Addressing Different Learning Styles

Previous positive or negative learning experiences are often the direct result of a match, or mismatch, between the students' preferred learning style and the teaching style of the instructor. In general, students who learn by listening to lectures and by reading and writing tend to do well in college classes. Often they go on to become teachers who tend to use the same traditional "lecture and reading" methods that they preferred as learners. Those who have different learning style preferences tend not to do well in college classes, and often do not understand why.

It is important for instructors to recognize their own learning style preferences so that they will understand how their preferences are different from those of their students. It is also important for students to become aware of their own learning styles in order to gain a better understanding of how they prefer to learn, and how they may strengthen other modes of learning which may not come naturally.

A learning styles inventory may be used to find out students' learning styles. David Kolb's Learning Style Inventory is most commonly used, others, including the "Perceptual Learning Style Inventory" and "Cognitive Mapping" are also effective. Personality type tests, such as the Myers-Briggs Type Indicator (MBTI) are sometimes used to determine personality traits which are linked to learning style preferences. A short inventory may be used quickly in class, or a longer inventory may be given to students to complete at home. Following students' completion of a learning style inventory, a brief discussion of learning styles will validate students' learning styles, and will let students know that the instructor is interested in their learning styles. In vocational classes it is important to address the learning styles commonly used in the classroom and on the job in this field. Students should recognize that they are likely to do better in college and on the job if they become versatile learners who can use a variety of learning styles.

### Using a Variety of Teaching Methods for Different Learning Styles

In most classes, other than lab classes, it is a good idea to vary the mode of learning about every 20 minutes. This gives all students a chance to use different styles of learning, some of which may be more comfortable than others. By varying the mode of learning frequently, the attention of students is more likely to be held, and students are more likely to be more involved in the class. The following list of teaching techniques may be integrated within a class meeting to meet the needs of different learners. (Most learners have more than one preferred learning style.)

Lectures are preferred by "aural" learners who learn by listening.

Audiotapes and Music also help "aural" learners to learn.

Visual Aids, including pictures, charts, slides, overhead transparencies, and videotapes, are preferred by "visual" learners who learn by seeing graphic images.

Demonstrations are preferred by both "aural" and "visual" learners

Hands-on activities help "haptic" learners who learn through their sense of touch.

Reading and Writing Assignments are preferred by "print" learners, who learn best by seeing printed words. These learners also tend to take detailed notes during class.

Interactive Activities, including cooperative learning, role playing, question and answer sessions, class discussions, debates, and interviews, are preferred by "interactive" learners: those who learn by talking and interacting with others.

Physical Activities which allow students to move around, including role playing, games, stretch breaks, or coming to the board to write, help "kinesthetic" learners.

Using scented materials in class helps "olfactory" learners who learn through a highly developed sense of smell and taste.

## Lessons from Corporate Training

Training in corporations is designed for expediency. Many must be trained for high performance in a short amount of time. Although vocational courses are typically broader in scope than corporate training programs designed to teach one specific skill, vocational programs may wish to consider some of the following elements of effective corporate training programs.

### Behavioral Objectives for Learning

Learning objectives are particularly important for adult learners because adults are goal-oriented learners. The objective might be the mastery of a skill or a specific subject. Objectives should contain an observable action, a measurable criterion, or the conditions of performance, and should be able to be stated "Upon completion of this course (or class meeting), the learner will be able to..." A visual demonstration of the intended outcome will help adults as they learn the new skill. In addition, seeing the desired outcome or goal makes the steps leading to the goal more relevant.

### Technological Aids

Microcomputers and videocassettes were used in corporate classrooms long before they were in college classrooms. New technology is often too expensive for colleges, particularly in times of tight budgets. However, vocational programs might examine the technologies being used in business today in order to plan to use them at the college in the future. Or colleges may consider partnerships with local corporations in which students are allowed to learn about the new technology at the corporation.

### A Variety of Teaching Methods

According to the Carnegie Report, Corporate Classrooms, a much broader range of teaching methods are used in corporate training than in typical college classrooms. Although conventional lectures, discussions, and audio visual materials are used, other methods are also used when appropriate: individual self-studies, case studies, simulations, computer-assisted instruction, programmed materials, and computer networks that link voice, graphics, text, motion, and audio. The method of instruction is chosen according to its appropriateness to the type of training to be conducted.

### Varying Lengths of Instruction

Corporate training is not limited to three-unit classes which meet for sixteen weeks. The training calender is year-round and has much more flexibility than the typical college. Courses may begin and end at any time of the year. The length of the course is determined by the amount of material to be covered. A training course may last several hours, a full day, a full week at a training facility, several hours each week for several weeks, or a full year. Corporate needs for training expediency and convenience to learners are considered when scheduling courses: whether it will be a part-time course during work hours or an intensive course off the worksite.

### Strategies to Ensure Effectiveness of Training

Two strategies which increase the training effectiveness after the course are journal writing during the training and discussion groups after the training. Each week following the course, the instructor copies and mails the journal entries of one student to the group. This reinforcement provides former students with new insights and reminds the former students to use their new skills on the job. The discussion groups enable former students to remain in contact with each other and to discuss problems or ideas on the job which relate to the course which had been completed.

# Model Vocational Programs for Adults

"Model" vocational programs for adults may be defined as those which attract adults through their curriculum and structure, retain adults through effective teaching methods which help adults to learn and which motivate adults to complete their classes and programs, and help adults to achieve their career goals by providing a high quality education and the skills needed in business and industry.

## Attracting Adults

Marketing Programs to Adults

The term, "Marketing" is often used incorrectly to describe advertising and promotion efforts. A true "marketing" program is a multi-faceted effort to address the many needs of current and potential students. Why do adults choose one college over another? Generally, they choose the college which meets their most pressing needs, including location, scheduling, availability of programs, cost of enrollment, career opportunities in the field, quality of faculty, and reputation of the program. In marketing vocational programs to adult learners, these needs must be considered.

The first step in a college marketing program is a thorough analysis of the college or program, competing educational institutions, and the needs of potential students. Next, decisions must be made about whether any changes are necessary to the college or program to better meet the needs of potential students. Finally, a variety of promotional strategies must be chosen to communicate the messages about the institution and the programs to potential adult students in the community.

The most important question is this: Should anything about the program or institution be changed? Has the college unintentionally set up barriers for adult learners? For instance, one potential barrier for many adults is the long lines and complicated registration procedures that exist at many colleges. Other barriers may be cost, child care, course offerings, or the scheduling and location of classes. These barriers, and solutions to them, must be included in marketing and promotion.

Promoting Vocational Programs to Adults. In many cases potential students do not come to the college simply because they are unaware of the programs and services. For this reason, it is important for vocational programs work toward high visibility through local promotional efforts. It is best to use several promotional vehicles, including paid advertising, press releases to local media, community involvement of faculty and students, and "free" samples for potential students. Colleges should also consider the importance of faculty and staff in "selling" to potential students who may visit the campus. Adults often select a college because they were treated with courtesy and respect before they enrolled.

It is important to provide information which addresses the special needs students: those with limited English skills, disabilities, and those who are economically or educationally disadvantaged. To reach the "hard to reach" potential students, vocational programs may consider promotional efforts aimed at community organizations which serve those with special needs.

Most vocational programs only promote their programs to individuals rather than to local businesses. Colleges need to "sell" what they do to local businesses to let them know about the programs that are available. Many small businesses cannot afford to train their employees, but if they know about a high quality local community college program in that field, they are likely to encourage their employees to take classes (and may even provide financial rewards for completing classes). If employers promote the vocational programs to their employees, the employees are more likely to enroll if they feel that it will help them on the job.

## Model Vocational Programs for Adults

### Curriculum Offerings

Maintaining Program Currency. Vocational programs have long relied on advisory committees to provide valuable input into the curriculum. As a result, program curriculum may be kept current by deleting courses as they become obsolete, and by modifying courses or adding new skill areas as needed.

Meeting local Workforce Development needs. A community-based vocational advisory committee, comprised of business people and decision-makers representing a variety of fields, ethnic groups, and special needs populations, can provide advice and insight for an overall vocational plan for the college. It is important for colleges to look at local business needs: what are the primary businesses in the region served by the college, and what is the employment outlook in these fields for this region?

Vocational Curriculum for students with Limited English Proficiency. Vocational programs must consider ways to meet the needs of those with limited English skills. The PAVE (Promoting Access to Vocational Education) program encourages colleges to develop Vocational ESL classes for specific vocational programs so that those with limited English skills may gain the job training necessary to become employable. Some vocational programs have in-class tutors with language skills different from those of the instructor to assist those who need help in understanding English.

Vocational Curriculum for students with disabilities. Most campuses have support services for those with physical and learning disabilities which may be effectively linked with vocational programs. Grossmont College has developed a model program of computer training for those with physical disabilities. Instructors in many other vocational programs have been successful in working with disabled students to find alternative ways to complete tasks while making sure that students develop necessary competencies at a level that will ensure success in the workplace. It is essential for instructors to communicate with disabled students about the realities of the job tasks, and the adaptive measures which may (or may not) be taken in the workplace.

### Structure: Location & Scheduling

Location of classes. It is important for vocational programs to consider alternative class locations which are more convenient to adults who work and live in the community. Many vocational programs have fixed labs which may not be easily relocated, however, non-lab classes could use alternative locations. Through a survey of adult students and potential students, it is possible to find out if adults prefer to attend classes on campus or at convenient "satellite" locations. Some colleges currently offer vocational programs at company sites through contract education programs. Some courses may also lend themselves to program delivery to homes through available technology, such as computer networks, teleconferences, or telecourses, which make programs accessible to more adults. By considering alternative class locations, vocational programs may attract more adult learners.

Scheduling of classes: timing & length of courses. A survey of adult students and potential students in the community may indicate when most adults are available to take college classes. Most colleges have inflexible semester-length classes which typically meet 3 hours per week. Innovative scheduling patterns may be more attractive to working adults: Saturday classes in a shorter time-frame, or "late-starting" classes which are more intensive and don't last the whole semester. Many colleges assume that all adults want classes in the evening. However, adults who are unemployed may prefer scheduling which allows them to complete a program quickly by attending classes five days per week, eight hours per day so that attending college and getting retrained becomes the full-time job. Fullerton College and College of the Sequoias offer specialized technology training in this schedule.



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## Retaining Adults

Why do students drop out of college? Vincent Tinto points out that although there is no profile of students who withdraw from college, students are likely to drop out of college for at least one of the following reasons: academic difficulty, lack of clear educational goals, lack of commitment to educational goals, incongruence with the other members of the institution, isolation due to lack of interaction, and financial need. Adults are likely to drop out if they have a low grade point average, if they feel a lack of support from family and friends, and if they do not have a commitment to earning a degree. However, many adults attend college for reasons other than earning a degree or certificate. For this reason, it may be more important to examine the reasons that adults do not complete their classes.

Why do students withdraw from classes? Students in community colleges tend to drop out of classes for the following reasons: taking too many classes, low motivation to study, low satisfaction with grades, lack of support from family, low academic expectations, and desire for a full-time job. Some drop out for reasons related to instruction: fear of not receiving a passing grade, inadequate prerequisite instruction, and dissatisfaction with the structure or content of the course. Absenteeism is strongly related to course withdrawal. Although adults tend to have lower absentee rates than younger students, when adults must miss a class meeting, these are the most common reasons: external responsibilities, low incentive for attendance, fatigue, and negative perceptions of professor. Although adults often drop out of classes due to multiple outside commitments, the motivation to complete a class is also related to instruction.

What can colleges do to increase student retention? Colleges that have been successful in increasing their retention of students are those which have a strong campus-wide commitment to serving students. Students judge the extent of the college's commitment to students by their day-to-day activities, not by slick brochures or by a well-worded mission statement. Vincent Tinto notes that it is ironic that the colleges which have successfully increased student retention have not focused on the issue of student retention, but rather on improving the campus climate and on increasing student learning. Student retention is likely to increase when instructors take a personalized approach to learning, because students will be more comfortable and more satisfied with their educational environment.

Developing "Learning Communities." Many returning adults get little support for attending college from family and friends. For this reason they often seek support through a new group of friends in their college classes. As difficulties arise, a feeling that "We're all in this together" can be powerful in increasing student retention and success. "Learning communities" in vocational programs help students to develop a feeling of connection with the program and with other students in the program. At Fullerton College, the Administration of Justice program starts this connection early: special logo t-shirts were made up for introductory classes, and most of the students purchased them and wore them with pride.

The Role of Matriculation in Student Retention. Student access and student success are primary goals of the matriculation process in the California Community Colleges. According to Title 5, "The goals of the matriculation process are to ensure that all students complete their college courses, persist to the next academic term, and achieve their educational objectives." Other than students who have earned an A.A. degree or higher, students are provided with the following matriculation services: skills assessment , orientation, counseling, student educational program planning, and student follow-up.

## Teaching Methods to Increase Student Retention

Ten Steps to Increase Student Retention. Vocational instructors may want to consider taking the following steps which are likely to increase student retention.

1. Treat students as individuals. Learn the names of students as quickly as possible, and use them often, both in and out of class. Recognize individual abilities, life experiences, and learning difficulties. A caring attitude toward students is the most important factor in retaining students.
2. Communicate clearly to students, individually and in class, that you want them to succeed, and you believe they have the ability to succeed. Many students drop a class because they may have a poor academic self-concept and low self-esteem, and the instructor never clearly tells them, "I think you can do it!"
3. Do not lower standards to increase student retention. Instead, encourage students by expressing confidence in their ability to meet your high standards, and provide individual assistance or peer help as needed.
4. Watch for early warning signs: poor attendance, habitually coming to class late or leaving early, late or uncompleted homework assignments, poor attention in poor class participation, poor performance on assignments and tests. Call students at home when they miss a class meeting to encourage them to come next time.
5. Talk individually with students when the problems first start. Arrange individual meetings before or after class with those who are having difficulties before the difficulties become overwhelming for the student. Those who are doing poorly are unlikely to want to come back to a class where they are constantly reminded of their own failings. They will need encouragement, extra help, and a strong message from the instructor, "I know you can do it!"
6. Encourage Students to Develop Time Management Skills. Most adults have multiple commitments which often get in the way of their classes. By introducing time management skills early in the semester, students will gain a realistic idea of the time commitment necessary to be successful in the course, and will learn how to better organize their time.
7. Use class time productively. A well-organized course in which time is used productively tells learners that they and the material are important.
8. Use a variety of teaching styles. This will provide a way to reach all students in a way which is most comfortable for their own learning style.
9. Provide relevance. Adults who do not see relevance in the class for their own personal life or career are more likely to drop the class. Relevance provides the motivation for coming to class and for completing outside classwork.
10. Communicate enthusiasm! Show enthusiasm for the students, teaching, and the subject in each class meeting.

## Motivational Techniques

Motivation to Learn. Most adults choose to come to college because of some intrinsic motivation: they want new skills for a better job; they want to learn about child development to understand their own children; or they want new skills for self-fulfillment. Some are extrinsically motivated: they may be required by their employer to take classes to upgrade their job skills, or to keep up a license. Adults tend to view education as a means to an end, not as an end in itself. They are motivated by knowing that some need will be met by learning the material. To increase student retention, it is important to address their motivations directly. Adults in vocational programs who are working toward a future career become more motivated when they see the relevance of the course material to their career goals.

Learning Goals. It is important to find out why students are taking the class and what they hope to achieve as a result of what they learn in the class. A "Student Goal-Ranking" exercise in the Cross/Angelo book, Classroom Assessment Techniques, recommends that students write down their top five learning goals for the class, then rank them two ways: by level of importance and by level of difficulty for the student. This exercise will let the instructor know how the students' goals match up with the instructor's goals for the class. When appropriate, student goals may also be incorporated into the class. This provides relevance and motivation to the adult learners, who want to be sure that their time is spent meeting their learning goals.

Concerns or Apprehensions About this Class. Although this may appear to be negative, in reality, asking students to write down their fears and concerns about the course at the very beginning tends to motivate students. Putting apprehensions in writing tends to provide a release from them. This process also lets students know that the instructor cares about their fears, and wants to help them to overcome them. Returning adults are usually relieved when they find out that they are not the only one with the same concern. For instance, many adult learners who have been away from classes for several years have "test anxiety," and may express this in writing. At the next class meeting, the instructor should address these fears directly (but without students names) by talking about what form the tests will take, and why the students will be successful, because there will be plenty of preparation for each test.

Relevance. Relevance is extremely important to adult learners. Because many adults are working toward career enhancement, they prefer learning new theories and skills which will help them to meet their career goals. Most adults try to find some congruence between the material they learn in the classroom and real life situations. Instructors may point out explicitly how students may use what they learn on the job, but usually when adults are asked, "How do you think you might apply what you have just learned?" they will come up with more meaningful ideas that are relevant to them. By incorporating relevance, instructors will motivate adults toward greater involvement in their learning.

## Helping Adults to Achieve Career Goals

Adults usually participate in a vocational program for job-related reasons: to gain new skills in a current job field, or to change career fields. The 1993 Job Outlook in U.S. News and World Report indicates that some companies are giving raises only to those who have gained new skills, because they are more versatile employees. Some whose jobs have been permanently eliminated are looking for new career fields in which the job opportunities are good. Model vocational programs address these needs by providing a high quality of education, by maintaining industry liaisons, and by providing adult learners with the skills currently needed in business and industry.

### Industry Liaisons

Advisory Committee. The advisory committee for each program plays an important role by helping colleges keep their vocational programs up to date. Liaisons with business and industry are essential to help programs to keep abreast of technological advances and facilitate students' "real-world" experience through internships, site visits, equipment donations, and guest speakers who work full-time in the field. These liaisons are essential to match up students with job opportunities.

Endorsements from Business. A mark of a model program is a strong endorsement from the business community. Employers who are satisfied with the graduates of a vocational program will be likely to promote the program to others: to their own employees, to other employers, and to those who are seeking to enter the career field.

## Model Vocational Programs for Adults

### Providing Skills Needed by Industry

Competency-based Education. Model vocational programs which prepare students for specific career fields use a competency-based model of education which is based upon the skills needed in the field. Advisory committees should inform programs about the level of skills needed for entry-level positions, and the skills necessary to be successful in various facets of the career. Then, vocational programs must ensure that these competencies and standards are met within the courses of the program.

Workplace Basics. In addition to the skills of a particular career field, model vocational programs build "Workplace Basics" and employability skills into the courses of the program. In addition to resume-writing and job-seeking skills for advanced students, this includes developing students' skills in teamwork, communication, reading, writing, math, problem-solving, and "learning to learn" throughout the program. It is also important for students to gain an understanding of the culture of the workplace for that career field: the typical workday tasks, work schedule, and expected behaviors.

Real World Relevance. Model vocational programs provide a high quality of education by simulating as closely as possible the real-world work environment students will encounter when they enter the job field, and by encouraging students to get involved in the career field early through internships or part-time jobs. Students in the Fullerton College Broadcasting program are encouraged to gain "real-world" broadcast experience through entry-level part-time jobs while still in college. Some radio students work weekend shifts on the air in small town radio stations within driving distance. Television students often gain part-time jobs with local cable or video production companies. These students benefit from their work experiences by increasing their self-confidence and problem-solving skills. Their experiences also have a tremendous positive influence on other students, who realize that it is indeed possible to get involved in this highly competitive industry.

### High Expectations

High expectations for all students is an essential part of an model vocational program. Instructors who set high standards for meaningful success in class prepare students for later success on the job. It is important for instructors to realize that some of the adults in their classes may be depressed over losing a job, or may be apprehensive about entering the job market after an absence. Many have doubts about their ability to learn new job skills. This is why it is important for instructors to provide encouragement with high expectations by clearly articulating, "I believe you can master these skills."

Special Populations. Model vocational programs have high expectations for students of special populations, including those with limited English skills, those with learning disabilities or physical disabilities, and those who are educationally or economically disadvantaged. High standards of achievement and a competency-based program are particularly important for these students who may need extra individual help as they are learning so that they will be successful in the workplace. Tutoring services, counseling support, child care, and financial aid are important elements in vocational programs which promote success for special populations.

Non-Traditional Careers. Model programs recognize that those entering non-traditional career fields need encouragement to overcome mental hurdles and other barriers which may exist in the workplace, including ethnic diversity, gender equity, and age equity. Cultural diversity and gender equity can be encouraged in career fields by providing role models, particularly successful former students, to show the students that it is possible to be successful in a non-traditional career field.

# Summary: How to Incorporate Effective Practices for Adult Learners into Vocational Programs

This brief report has presented many ideas which may help vocational programs to serve the needs of adult learners more effectively. These practices may already be well established in some vocational programs. But if changes must be made in order to incorporate these effective practices for adult learners, faculty must see the need for making changes. Without the support of the faculty, the changes are likely to be short-lived, and will ultimately not serve the needs of the adult learners. For this reason, the first step in the process should be faculty development. In addition, campus-wide support for faculty development and for serving the needs of adults must be established. Finally, to incorporate effective practices for adult learners into vocational programs, faculty may wish to consult a checklist provided at the end of this section which includes the effective practices outlined throughout this report.

## Importance of Faculty Development

Faculty in vocational programs need to gain an awareness of the realities of the characteristics of the current student population. The student population has gradually evolved to include a majority of adult learners, and many students with special needs. Instructors may need to be reminded of the unique needs, concerns, and characteristics of adult learners, as well as the most effective teaching methods for returning adults. Through a greater awareness of the needs of adult learners, as well as changing workplace needs, faculty in vocational programs may perceive the need to change the way they teach their classes. They may also become motivated to consider re-examining the assumptions under which the programs were structured, including the class structure, units, length of courses, and certificate requirements.

Stimulating Interest in Faculty Development among Vocational Faculty

Most faculty do not believe that their teaching needs improvement, yet they are frustrated that some of the "tried and true" teaching methods they've been using for years no longer seem to be effective. Many blame the students: "They're just not as good as they used to be when I started teaching 30 years ago." If faculty development is promoted as providing solutions to these frustrations, faculty are likely to be interested. Most faculty will agree that learning needs to be improved, and will be interested in finding out how to do that. It's better, for this reason, to focus on "Improvement of Learning" rather than "Improvement of Teaching." "Teaching improvement" implies that teaching is poor and needs remediation.

Faculty will not be interested in workshops and other faculty development activities unless they feel that they will be learning something practical that they can actually use in their classes immediately. In promoting faculty development activities it is important to explain in concrete terms "What you will get out of this workshop" or "What you will learn that you can use in your classes."

Should faculty development be required? Usually "required" activities are not effective in motivating faculty to become interested in new ideas. They must perceive the need for the faculty development activity, and then they may become more interested by participating and discussing the issues with other faculty. Workshops should be appealing to faculty so that they want to participate, and activities should be held at times that are convenient to faculty: lunch time, afternoons, or early evenings (for part-time faculty who teach evening classes).

### Summary: Incorporating Effective Practices for Adult Learners

Should faculty be paid to participate in faculty development activities? Generally, this is not a good idea because when funds for faculty participation are not available, they will be unlikely to participate. It is better to motivate faculty participation by providing practical workshops and activities on topics for which faculty perceive a need. Faculty development activities should be considered as a bonus to faculty because they get useful information and new teaching ideas at no cost! However, if faculty are required to do extra outside work beyond simply attending the workshops or meetings (such as restructuring classes or programs, or spending time developing materials for other faculty), a stipend for this extra work is appropriate.

## Support for change with a long-lasting impact.

Campus-wide support. According to the California Master Plan, vocational and transfer programs are co-equal missions of the community college. However, many colleges tend to put greater resources and efforts toward the transfer mission. Those who wish to provide faculty development activities which address the unique needs of adult learners in vocational programs will need to gain the support of the faculty and the college leadership, including the College President, the Vice President of Instruction, the Dean of Vocational Education, and the Staff Development Coordinator and Staff Development Committee. Without this support (time and funds for faculty development activities, and possibly funds to develop instructional materials and new curriculum) efforts to make changes will be spotty, resulting from the work of a few who are excited about serving the needs of adult learners in vocational programs.

On-going Faculty Development Efforts. Although faculty development on adult learning may begin with a workshop or presentation to vocational faculty, this should not be the only event. Studies have shown that one-shot workshops are not effective for instituting long-term changes. A program of faculty development could start with a workshop to build awareness of the characteristics and needs of adult learners, and then may evolve into a series of regularly scheduled workshops or meetings which may be targeted to faculty who teach in the same program. As faculty try new teaching techniques for adult learners, it is important for them to get together regularly to discuss teaching problems and to share ideas and success stories. For instance, if an initial workshop on adult learning is provided during Flex (one day, one evening for part-time faculty), then on-going activities or meetings should be scheduled at convenient times for both full-time and part-time faculty.

## Checklist: Effective Practices for Adult Learners

Ten Effective Teaching Practices

1. Use a collaborative teaching style.
2. Draw on adults' life experiences.
3. Encourage self-directed learning.
4. Incorporate the learning goals of adults.
5. Consider needs of special populations.
6. Incorporate active learning modes.
7. Use methods for diverse learning styles.
8. Provide relevance.
9. Incorporate "Workplace Basics."
10. Provide a supportive learning environment.

Ten Attributes of Model Programs

1. Conduct research to assess needs.
2. Market programs to Adults.
3. Meet local workforce needs.
4. Maintain program currency.
5. Review class locations and schedule.
6. Develop "Learning Communities."
7. Maintain industry liaisons.
8. Build in skills needed in industry.
9. Set industry-based competencies.
10. Set high expectations for all students.

# References


Workforce Development

Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1991). Workplace basics: The essential skills employers want. Jossey-Bass Publishers, 350 Sansome Street, San Francisco, California 94104-1310. ($37.95)

Chronicle of Higher Education (August 26, 1992). Almanac of Higher Education.

Commission on the Skills of the American Workforce (1990). America's choice: High Skills or Low Wages. National Center on Education and the Economy, P.O. Box 10670, Rochester, New York 14614. ($18)

Community College League of California (May-June, 1992) The News, p. 3.

Johnston, W. B., & Packer, A. H. (1987). Workforce 2000: Work and workers for the 21st century. Hudson Institute, P.O. Box 26-919, Indianapolis, Indiana 46226.

Miller, E. (1991). Future vision: The 189 most important trends of the 1990's. Naperville, IL: Sourcebooks Trade.

The Secretary's Commission on Achieving Necessary Skills (1991). What work requires of schools: A SCANS report for America 2000. Employment and Training Administration, U.S. Department of Labor, 71 Stevenson Street, OTES/PSU/RSC, P.O. Box 193767, San Francisco, Calif. 94119-3767.

U.S. Departments of Labor, Education, and Commerce. (1988). Building a quality workforce. Superintendent of Documents, Government Printing Office, Washington, D. C., 20402 (Stock #029-000-00425-1). ($4.50)

Adults in Vocational Programs

Cross, K. P. (1981). Adults as learners. San Francisco: Jossey-Bass Publishers.

ERIC Clearinghouse on Adult, Career, and Vocational Education (1989). Nontraditional occupations: A status report. Trends and Issues Alert.

Kelly, D. K. (1986). Adult learners: Implications for faculty. ERIC #ED 277 442

Hudson Institute (1988). Opportunity 2000: Creating affirmative action strategies for a changing workforce. Indianapolis, IN: Hudson Institute.

Loden, M., & Rosener, J. B. (1991). Workforce America! Managing employee diversity as a vital resource. Homewood, IL: Business One Irwin.

Palmer, J. (1986). What do we know about community college vocational students? Community College Review, 14(1), 57-64.

Williams, C. L. (1989). Gender differences at work: Women and men in nontraditional occupations. Berkeley, CA: University of California Press.

## References

Effective Teaching for Adult Learners

Bowsher, J. E. (1989). Educating America: Lessons learned in the nation's corporations. New York: John Wiley & Sons, Inc.

Brookfield, S. D. (1986). Understanding and facilitating adult learning. San Francisco: Jossey-Bass Publishers.

Chancellor's Office, California Community Colleges. (1988). Successful teaching strategies: Instruction for Black and Hispanic students in the California Community Colleges.

Claxton, C. S., & Murrell, P. H. (1987). Learning styles: Implications for improving educational practices. ASHE-ERIC Higher Education Report No. 4. Washington, D. C.: Association for the Study of Higher Education.

Cross, K. P., & Angelo, T. A. (1988). Classroom assessment techniques: A handbook for faculty. Ann Arbor, MI: National Center For Research to Improve Postsecondary Teaching and Learning, University of Michigan.

Draves, W. A. (1984). How to teach adults. Manhattan, KS: The Learning Resources Network.

ERIC Clearinghouse on Adult, Career, and Vocational Education (1991). Guidelines for working with adult learners. ERIC Digest No. 77.

James, W. B., & Galbraith, M. W. (1985, January). Perceptual learning styles: Implications and techniques for the practitioner. Lifelong learning, 20-23.

Kelly, D. K. (1991). The effects of Classroom Research by part-time faculty upon the retention of adult students. ERIC #ED 335 076.

Knowles, M. (1984). The adult learner: A neglected species, third edition. Houston, TX: Gulf Publishing.

Knowles, M. (1985). Andragogy in action. San Francisco: Jossey-Bass Publishers.

Knox, A. B. (1986). Helping adults learn. San Francisco: Jossey-Bass Publishers.

Manson, J. (1989). Classroom tips for assisting students of different cultural and linguistic backgrounds. [In UCLA Extension Instructor Orientation Book.]

Schlossberg, N. K., Lynch, A. Q. , & Chickering, A. W. (1989). Improving higher education environments for adults. San Francisco: Jossey-Bass Publishers.

Sego, A. F. (1991). Cooperative learning: A classroom guide. Cleveland, OH: Info-Tec, Inc.

Smith, L. M. (1988). The college student with a disability: A faculty handbook. California Governor's Committee for Employment of the Handicapped.

## References

Study Group on the Conditions of Excellence in American Higher Education (1984). Involvement in learning: Realizing the potential of American higher education. Washington, D. C.: Department of Education.

Sullivan, H., & Higgins, N. (1983). Teaching for competence. New York: Teachers College Press.

U.S. Department of Education (1987). What works: Research about teaching and learning, second edition. Washington, D. C.: U.S. Department of Education.

Weimer, M. (1990). Improving college teaching. San Francisco: Jossey-Bass Publishers.

Wlodkowski, R. J. (1988). Enhancing adult motivation to learn. San Francisco: Jossey-Bass Publishers.

### Model Vocational Programs for Adults

Baker, G., Roueche, J., & Gillett-Karam, R. (1990). Teaching as leading: Profiles of excellence in the open-door college. Washington, D. C.: The Community College Press.

Booth, G. (1987). The community college course withdrawer: A longitudinal analysis of the program reduction phenomenon. Unpublished doctoral dissertation, The Claremont Graduate School, Claremont, California.

Chan, S. W. (1992). Strategies for teaching, access and retention: A project aimed at increasing the success rates of students with learning disabilities and students with economic disadvantages in vocational programs of the California Community College system. Cupertino, California: De Anza College.

Commission on the Future of Community Colleges. (1988). Building communities: A vision for a new century. Washington, D. C.: American Association of Community and Junior Colleges.

Farabaugh-Dorkins, C. (1991, Spring). Beginning to understand why older students drop out of college. AIR Professional File, Number 39.

Friedlander, J. (1981). Why students drop courses. ERIC Junior College Resource Review. Los Angeles, California: ERIC Clearinghouse for Junior Colleges. (ERIC Document Reproduction Service No. ED 196 505.)

Kelly, D. K. (1988). Marketing higher education to adults. ERIC #ED 302 664.

Kelly, D. K. (1988). Motivating the underprepared, unmotivated community college student. ERIC #ED 299 009.

Kuh, G. D., Schuh, J. H., & Whitt, E. J. (1991). Involving colleges: Successful approaches to fostering student learning and development outside the classroom. San Francisco: Jossey-Bass Publishers.

## References

Lenning, O. T., Sauer, K., & Beal, P.E. (1980). Student retention strategies. Washington, D. C.: American Association for Higher Education.

Tinto, V. (1987). Leaving college. Chicago: The University of Chicago Press.

Incorporating Effective Practices for Adult Learners

Kelly, D. (1991). Linking faculty development with adult development: An individualized approach to professional growth and renewal. ERIC #ED 337 103.

Kelly, D. (1990). Planning in the 90's for community colleges: Coping with rapid change by linking the planning process, futures research, and professional development. ERIC #ED 337 103.

Kelly, D. (1990). Reviving the "deadwood:" How to create an institutional climate to encourage the professional growth and revitalization of mid-career faculty in the community college. ERIC #ED 318 518.

Kelly, D. (1988). "A Corporate Approach to Faculty Development." Educational Horizons, Vol. 66, No. 4, pp. 167-171.

Organizations (for further information)

American Society for Training and Development (ASTD) (703) 683-8100
1640 King Street, P. O. Box 1443
Alexandria, Virginia 22313-2043

American Vocational Association (AVA)
1410 King Street
Alexandria, Virginia 22314

California Association for Local Economic Development (CALED) (916) 448-8252
1022 G Street
Sacramento, California 95814

California Community College Association for Occupational Education (CCCAOE)
Pasadena City College
Office of Economic Development/Vocational Education
1570 East Colorado Blvd.
Pasadena, Calif. 91106-2003

California Community College Economic Development Network (ED>Net)
390 West Fir, Suite 204
Clovis, California 93611-0244
phone: (209) 297-6000 toll free: (800) 344-3812

California Community Colleges Council on Staff Development (4CSD)
Donna Manno, El Camino College (310) 715-3129
16007 Crenshaw Blvd.
Torrance, California 90506

## References

Council for Adult and Experiential Learning (CAEL) (312) 922-5909
223 West Jackson, Suite 510
Chicago, Illinois 60606

National Center for Research in Vocational Education (NCRVE)
Virginia Polytechnic Institute and State University
116 Lane Hall
Blacksburg, Virginia 24061-0254

Promoting Access to Vocational Education (PAVE) Program
Laura Franklin (310) 715-7830
El Camino College
16007 Crenshaw Blvd.
Torrance, California 90506

Technical Assistance for Special Populations Program (TASSP) (217) 333-0807
National Center for Research in Vocational Education
University of Illinois
345 Education Building
1310 Sixth Street
Champaign, Illinois 61820

| Selected Model Programs | Contact Person |
|---|---|
| American River College<br>Total quality Management Program | Sherrill Rabe, Coordinator<br>(916) 484-8460 |
| Citrus College<br>Public Works Program | Bart Bartel, Vocational Dean<br>(818) 914-8700 |
| College of the Sequoias<br>Maintenance Technician Program | Scott Williams, faculty<br>(209) 730-3815 |
| Fullerton College<br>Administration of Justice Program | Ted Oglesby, faculty<br>(714) 992-7238 |
| Fullerton College<br>Machine Technology Program | Kenn Lewis, faculty<br>(714) 992-7282 |
| Fullerton College<br>Radio-Television Program | Marie Perez, chair<br>(714) 992-7161 |
| Mission College<br>Industrial Model Building Program | Peter Xiques, faculty<br>(408) 988-2200 x3348 |
| Mission College<br>Real Estate Program | Richard Przybylski, chair<br>(408) 988-2200 x3333 |
| Pasadena City College<br>Engineering and Technology Program | Robert Navarro, chair<br>(818) 585-7267 |
| Yuba College<br>Office Administration Program | Beverly Paget, Associate Dean<br>(916) 741-6727 |